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Abstract

This paper discusses and empirically tests the relations between language proficiency and national identification with Germany among first generation immigrants in Germany. It presents three theoretical arguments: (1) language proficiency positively affects national identification; and contrastingly (2) national identification positively influences language proficiency; and (3) there is a reciprocal relationship between both constructs. To test these potentially contradictory claims empirically, we utilize data on first generation immigrants in Germany measured in four waves (1997, 1999, 2001 and 2003) from the German Socio-Economic Panel (SOEP) study. Language proficiency is operationalized with the variable proficiency in German language. Hypotheses are tested using autoregressive cross-lagged structural equation models. Findings demonstrate an effect of language proficiency on national identification among immigrants in Germany. However, data provide no support for an effect in the other direction.

Keywords: Immigrants; Second language proficiency; National identification; Autoregressive cross-lagged models; German Socioeconomic Panel Data (SOEP)

Introduction

Immigration and immigrants' incorporation into the receiving society has maintained its dominance as one of the central social processes characterizing contemporary industrialized societies. Although these societies are continuously taking measures to decrease the flow of immigration, they are also engaged in efforts to incorporate those immigrants who are already living within them. Immigrants' incorporation is referred to in the literature using two different concepts: assimilation and integration. Assimilation is typically used in the US context whereas integration is more dominant in European immigration research (Brubaker, 2001).

Historically, the concept of assimilation was normatively charged with positive values towards the receiving society and negative values towards the ethnic heritage. Brubaker (2001) maintains that during the 1990s, with Alba and Nee's (1997, 1999) renewed formulation of a new assimilation theory and the emergence of the segmented assimilation perspective (e.g., Portes and Rumbaut, 2001), assimilation has become normatively 'agnostic', and the difference between assimilation and integration has been minimized. Brubaker (2001) ignores, however, the vast body of research on acculturation, in which assimilation and integration still have very different meanings.

Berry's (1997) multidimensional model of acculturation, for example, defines assimilation as a transition from one's heritage culture to the culture of the receiving society, whereas integration represents equal commitments to the heritage and the host group's cultures.[1] This

[1] Esser (2008) prefers to use the term 'multiple inclusion' to represent this dual cultural commitment, preserving the term 'integration' for the more general process of individual immigrants' incorporation. In the current study 'integration' refers to the general process of incorporation as well.

model views acculturation as dependent on two separate dimensions: one's connection with his/her heritage culture and his/her connection with the culture of the host society (Lafromboise et al., 1993). Based on this view, Hochman (2010) suggested that the two dimensions are guided by different mechanisms and should be investigated separately. Looking into the effect of policy on socio-cultural integration, Ersanilli and Koopmans (2011) also investigated the two dimensions separately.

This study is focused on immigrants' relation with the host society, and particularly, the extent to which they accept its cultural practices in the form of acquiring skills in its language and their identification with it. Language proficiency has been on the agenda of integration research for many years and served as an important indicator of human capital, determining immigrants' structural integration (e.g., Chiswick, 1991). Yet as Tempel (2010) points out, much less has been done to investigate the relations between language and national identification (but see Alba, 1990; Berry, 1997; Portes and Rumbaut, 2001; Waters, 1990). This lacuna is particularly noteworthy given the ongoing debates regarding current and former incorporation policies for immigrants (primarily in Continental Europe) and their consequences both to immigration receiving countries and to the immigrants themselves. Joppke (2004) proposes that states are increasingly moving away from the notion that it is their task to "force identities upon people" (p. 254). Yet the decline of ethnicizing does not mark the victory of multiculturalism. In his account from 2007, Joppke stresses the wide consensus across Western Europe regarding the state's responsibility to impose upon immigrants some form of cultural integration. Thus, immigrants arriving in these states are obligated to participate in language courses as well as 'civic' courses where the history and the institutional structures of the state are introduced.

Thus, the new 'civic integration' does not represent the willingness of European states to renounce their powers to 'mold' immigrants into 'nationals', but rather a shift in the source of

legitimacy to do so, which is becoming less national and more liberal (Joppke, 2007). Under these new circumstances, the relations between receiving society's language and national identification become all the more interesting. As we demonstrate below, culture and identification have a mutual dependency relationship, which on the one hand may imply that cultural shifts lead to identificational changes, and on the other hand, that without a shift of identification, no real cultural shift is possible.

We try to provide a closer look at the relations between the identificational and cultural dimensions of integration by delineating the direction of the causal relations between the German language proficiency of immigrants in Germany and their national identification with Germany, one of the largest immigrant receiving countries in Continental Europe (Koopmans and Statham, 1999). While most studies on language learning and national identification focus on young second generation immigrants, this research concentrates on adult first generation immigrants.[2]

Particularly during the second half of the 20th century, West Germany took in a rather large number of immigrants. Their arrival can be divided into six waves (Münz and Ulrich, 1997).[3] The first and second waves took place between 1945 and 1961. They were mainly composed of German refugees and expellees who returned to West Germany after the Second World War and of immigrants from East Germany into West Germany. The third and fourth waves, between 1961 and 1980, were dominated by labor migrants and their family members who were recruited by the West German government in light of its fast growing economy and shortage of workers. The two final waves include the large numbers of immigrants mostly

[2] Our definition of 'first generation immigrants' includes all foreign born individuals regardless of their age upon arrival.

[3] After the Second World War and up to the early 1990s Germany was divided into East and West Germany. The information provided here refers solely to West Germany.

from East Germany and the former communist bloc, arriving in Germany during the late 1980s and the early 1990s (Münz and Ulrich, 2003).[4]

While the legal status of immigrants in the united Germany was revised and regulated by the end of the 1990s, their integration remains a central issue, both on the political and public agenda as well as in the social sciences (Davidov and Weick, 2011; Luther, 2013; Raijman, Semyonov and Schmidt, 2003; Schlüter, Schmidt and Wagner, 2008). In recent years, the topic has regained dominance in both the public and academic spheres, as it became clear that inequality between native Germans and immigrants of the first generation persists into the second immigrant generation (Biedinger, Becker and Rohling, 2008; Constant and Massey, 2005; Diehl and Koenig, 2009; Kalter and Granato, 2001; Kristen and Dollmann, 2010).

The enduring structural inequalities between native Germans and immigrants in Germany are often traced back to the latter's lack of German language skills, shortage of interethnic networks and their persisting identification with their heritage ethnic group (Constant and Zimmermann, 2008; Kalter, 2006; Seibert and Solga, 2005). Intergenerational transfer of cultural and human capital from the first to consecutive immigrant generations (e.g., Nauck, 2001; Portes and Rumbaut, 2001) implies that one should seek answers not only among the younger generations but also among their parents' generation.[5]

The contribution of this study is twofold: First, it considers theoretical explanations for the causal influence of language proficiency on national identification and for the opposite causal relationship. Second, to empirically test these relationships, we utilize panel data from the

[4] Approximately during the same period, refugees and asylum seekers from conflict regions in Yugoslavia and Turkey were also arriving into Germany in relatively large numbers.

[5] As is often the case, even though the German society is constantly concerned with the stagnation in the cultural integration of immigrants, studies suggest that it has improved over years and generations (Diehl and Schnell, 2006; Kristen and Dollmann, 2010)

German Socioeconomic Panel (SOEP; Wagner, Frick and Schupp, 2007) and an autoregressive cross-lagged (ARCL) structural equation model (Finkel, 1995; Schlüter, Schmidt and Wagner, 2008). In the next section we present the theoretical framework of this study. The setting in which this study takes place is presented next followed by a description of the data and method used, and a discussion of the main results.

Theoretical Framework

Immigrants' integration has been understood differently by different approaches. Early studies considered it as a process by which, over years and generations, immigrants and their descendants gradually replace their heritage culture and orientation with those of the receiving society (Park, 1950; Warner and Srole, 1946). Later accounts on immigrants' integration pointed out that the path representing the assimilation process is not necessarily a "straight line" (Gans, 1997). For Gans (ibid.) this simply meant that for some immigrants (mainly African Americans and Latinos) there might be bumps along the way. Yet for others there was indeed more than one "line" of assimilation.

The Segmented Assimilation Theory thus proposes that assimilation is not the sole path taken by immigrants and their descendants into integration. Among some immigrant minorities, primarily in the US, a successful integration was achieved through maintenance of their cultural and social origin-based preferences (Portes and Rumbaut, 2001; Wilson and Portes, 1980; Zhou, 1997). Alternatively, immigrants in the US were also increasingly found to assimilate into the American underclass or inner-city ghettos (e.g., Wilson 1991).

Indeed, in the last decade, a middle way between the two perspectives has emerged that acknowledges the complexities of the integration process, with its multiple outcomes shaped by interactions between individual and contextual conditions. Among the first to portray this complexity were Alba and Nee (1997) who broadly depicted the relationships between the

macro, mezzo and micro factors shaping the process of integration among individual immigrants. Later accounts noted that while a multilayered understanding is a useful tool to capture the process of integration, Alba and Nee's theory falls short in conveying the individual mechanisms through which these factors shape individual behavior (e.g., Kalter and Granato, 2002; Esser 2008). Acknowledging the importance of moving from listing of potential factors to the specification of mechanisms in the formation of integration processes, this paper focuses on the causal relations between language proficiency and national identification with the host society.

National identification with the host society is one of the clearest manifestations of Gordon's (1964) identificational dimension of assimilation. The identificational (or emotional) dimension of assimilation represents a unique sense of unity experienced by individuals with the social unit to which they belong. It is marked by the emergence of feelings of national pride with the receiving society or a 'we' feeling one develops towards other members of the group (Esser, 2001).

Proficiency in the language of the receiving society (the 'second' language) has been postulated in the sociological and economics literature as a form of human capital. Chiswick and Miller (1996), for example, understand language to "enhance prospects for economic success" (p. 19). However, second language proficiency is also regarded as a central cultural indicator that is closely associated with one's national group membership and identity (Ersanilli and Koopmans, 2010; Hojat et al., 2009; Miller, 1999). In this study we focus on the latter approach to second language proficiency.

The cultural integration model

This causal path between second language proficiency and national identification is based on the understanding of the acquisition of knowledge and skills in the culture of the receiving

society as an indication of one's increasing similarity to its members, leading to one's increasing identification with it (Taft, 1957). This path also mirrors Gordon's (1964) understanding of the identificational dimension of integration as its end point. The mechanisms for understanding this path can be associated with both self-categorization theory and identity theory (e.g., Stryker and Serpe, 1982; Tajfel and Turner, 1986). Using the terms 'fit' or 'compatibility', respectively, both theories underline the importance of holding the properties considered as markers of group membership to the emergence of identification with the group. Both thus imply that culture, and language proficiency as one important element of it and as a marker of ethnic (national) group membership, are central to the emergence of identification with this group.

Self-categorization theory maintains that individuals tend to categorize themselves and identify with people to whom they feel similar (Turner et al., 1987). Following this logic, as one adopts elements of the culture of the receiving society, his/her similarity, or 'fit' to this group will increase, leading to an increase in his/her level of self-identification with this group. In identity theory, one's identification with a specific 'role identity' strongly relies on the normative expectations associated with this role. In the context of role identities, like being a member of an ethnic group, adherence to the culture of the group represents such a central expectation. Thus in the terms of identity theory, an adoption of cultural practices and knowledge of the receiving society is predicted to increase one's compatibility with it, and again encourage one to identify with the group (Becker, 2009; Bisin et al., 2006; Noels, Pon and Clement, 1996).

The national identity model

Adopting an opposite perspective on the relations between cultural and emotional integration, several researchers suggest that the learning of a second language requires one's willingness to identify in terms of the new culture. To the contrary, individuals who are reluctant to make

adjustments in their ethnic self-concept are expected to be less willing and less successful in learning the second language. The main mechanism behind both processes is embedded in individuals' need to maintain and demonstrate their loyalty to the ethnic-cultural group they belong to or aspire to belong to (Bergman, Watrous-Rodriguez and Chalkley, 2008; Giles and Johnson, 1987).

This type of behavior fits the propositions of self-verification theory (Swann and Read, 1981), maintaining that individuals' actions derive from their deepest convictions and values. If we are to understand social identification as one such deep conviction, we can expect that individuals who identify with a certain ethnic/national group will be more motivated to acquire its language. It is also associated with recent theoretical developments in linguistics that stress the importance of "possible selves" for second language learning (e.g., Dörnyei, 2009).

Some studies have demonstrated this claim with regard to individuals' mother tongue skills and their identification with their country of origin. Giampapa (2001) demonstrates, for example, how her Canadian-Italian respondents take pride in their Italian language skills as a marker of the importance of their Italian identification. Some of her respondents stress the importance of high proficiency in the second language as a tool for the demonstration of their strong identification with the receiving society (Giampapa, 2001). Tempel (2010) demonstrates that Polish speakers in England related learning English to changes they are willing or unwilling to make in their lives and in their self-concepts. Similarly, Cervatiuc (2009) demonstrates how re-categorization into a community of bicultural persons increases first generation immigrants' ability to acquire second language skills.

The reciprocal model

The existence of solid theoretical grounds for both directions of relations between language and national identification requires a test for the possibility that both directions are in progress. However, this possibility has only been rarely tested (see, e.g., Henning-Lindblom and Liebkind, 2007). Esser (2008), for example, suggests that while knowledge in the receiving society's language may increase immigrants' identification with it, identification with the receiving society may, to the contrary, also encourage cultural integration. With the empirical approach utilized here we shall try to further delve into the possibility of a reciprocal relationship between identification and language skills. Based on these theoretical propositions, our hypotheses are as follows:

H1) Immigrants' cultural integration in the form of German language proficiency influences their emotional integration in the form of German identification;

H2) Immigrants' emotional integration in the form of German identification influences cultural integration in the form of German language proficiency;

H3) Cultural integration in the form of German language skills and emotional integration in the form of German identification influence each other reciprocally.

Data, Measurements and Method

The empirical test of a causal structure requires the use of panel data, allowing a clear temporal sequence between the measurements[6]. Second, it requires a method that allows a simultaneous estimation of two regression models – the first predicting language proficiency and the second predicting national identification. To meet the first requirement, we use data from the German Socio-Economic Panel (SOEP) study, an ongoing research project that has

[6] Obviously, experimental designs provide more powerful tests of causality. Nevertheless, panel data enable us more flexibility in causality tests than can be found in cross-sectional data.

been collecting data in Germany for over 27 years. To meet the second requirement, we apply an ARCL model (Finkel, 1995; Jonge et al., 2001; Schlüter, Davidov and Schmidt, 2007).

Data

The SOEP is a longitudinal survey distributed by the Deutsches Institut für Wirtschaftsforschung (DIW, German Institute of Economic Research) on a yearly basis since 1984 (Wagner et al., 2007). The survey is based on a stratified sample of households in Germany, and its purpose is to collect information on a wide variety of indicators from all members of these households. Although the SOEP is not specifically designed to study integration, it includes a sufficient number of respondents with an immigration background and useful indicators related to the topic. Several studies have utilized data provided by the SOEP to study integration of immigrants in Germany (Davidov and Weick, 2011; Diehl and Blohm, 2008; Hochman, 2011; Reinecke, Schmidt and Weick, 2005).[7]

This paper focuses on first generation immigrants identified by their self-reported country of birth. Importantly, there are theoretical reasons to assume that the mechanisms underlying the relations between the cultural and emotional dimensions of integration among members of the first and consecutive generations are different. While among first generation immigrants, their ascribed ethnic group is the ethnic heritage group, among second generation immigrants, the ascribed membership is not so clear-cut. Although they are often socialized into the same group their parents belong to, immigrant descendants are also exposed to the culture of the receiving society outside the home. Language and identification preferences among them may

[7] Importantly, the SOEP does not represent the entire population of foreigners in Germany (Diehl and Schnell, 2006).

thus be governed by reactive motivations (Portes and Rumbaut, 2001) – either to pressures placed on them by their parents or to those placed on them in society.

The present study is also selective in terms of the immigrant groups it includes. Specifically, we focus on immigrants into Germany who are not of German descent (not recognized as 'ethnic Germans' or '*Aussiedler*') and who do not hold a German citizenship. Ethnic immigrants whose ancestors were German and immigrants who hold a German citizenship may differ from other migrants in their attachment to and identification with Germany. We thus removed from the sample ethnic Germans and all individuals from Eastern Europe who have the German nationality (citizenship). Immigrants from Eastern Europe who do not hold German citizenship are included in our subsample.

The SOEP has included data on immigrants since 1984; however, the items included in each wave have not always been the same. Questions to measure language proficiency and national identification were introduced in 1984 (1985 for language proficiency). The national identity items were removed after 2003 and re-introduced in 2010. Background variables we control for in this study (such as discrimination experiences or interethnic friendships) were included only in some of the waves.[8] The following estimations are thus based on data from four waves, namely, 1997, 1999, 2001 and 2003.[9] The subsample we derived from the SOEP included a total of 2,444 respondents. Specifically, 1,733 respondents were included in 1997, 1,513 in 1999, 1,785 in 2001, and 1,581 in 2003. The increase in the number of respondents in

[8] For instance, discrimination experience was only introduced in 1996, and social networks information is available only until 2001.

[9] The selection of these four waves derives from our effort to include data that covers several background variables and presents the most recent information. We are aware of the newest 2010 wave where ethnic identification was reintroduced into the SOEP; however, the method we apply requires the gaps between the years to be equal and hence we could not integrate the data from 2010 into the models presented here.

2001 is a result of a refreshment sample pooled in 2000 (descriptive statistics are provided in Appendix 1).[10, 11]

Measurements

In order to measure respondents' language proficiency, we use their self-reported German language speaking and writing skills. We propose to view second language proficiency as a main indicator of an immigrant's cultural integration.

The SOEP includes the following two questions to measure these skills: "Foreigners who come to Germany find learning German difficult. In your case, (1) how well do you speak German, and (2) how well do you write German". The answers range from 1 (*very well*) to 5 (*not at all*). Previous studies indicate that these measurements provide reliable and valid information regarding the respondents' language skills (e.g., Lanca et al., 1994). Responses were recoded so that higher scores indicated higher German language proficiency. The correlation between both scores ranged between 0.78 and 0.82 in the four survey years.

Respondents' emotional integration is measured using their self-reported level of German identification. To measure German identification we used the question: "To what degree do you think of yourself as German?" Response categories ranged from 1 (*completely*) to 5 (*not at all*). Respondents' answers were recoded so that higher scores imply stronger identification with Germany.

Our control variables include socio-economic status, education, parents' education, discrimination experiences, cultural heritage preferences (music and cooking), mother tongue skills, identification with country of origin, interethnic contact, age at immigration, and ethnic

[10] Separate analyses were conducted with and without the refreshment samples. Results were essentially the same.

[11] More information on the SOEP can be obtained from http://panel.gsoep.de/

origin.[12] Previous studies consistently demonstrate that higher levels of education, socioeconomic status and parental education have small to negligible effects on identification with the host society and are typically positively correlated with second language skills (Chiswick, 1998; Golash-Bosa, 2006; Maliepaard, Lubbers and Gijsbert, 2009; Walters, Phythian and Anisef, 2007). Identification with the country of origin, perceived discrimination, as well as culture heritage practices and mother tongue skills decrease identification with the receiving society and second language proficiency (e.g., Berzonsky, 1997; Michel, Tizmann and Silbereisen, 2012; Ono, 2002; Portes and Rumbaut, 2001; Sears et al., 2003). By way of contrast, contact with Germans and having German friends were found to be positively associated with stronger identification with the receiving society and second language proficiency (e.g., Oropesa, Landale and Grief, 2008; Simon, 2004; Van Tubergen and Kalmijn, 2005). Finally, it is expected that European immigrants in Germany will display a higher level of German identification and better proficiency in the German language than other immigrants (e.g., Diehl and Schnell, 2006).

Method

Autoregressive cross-lagged (ARCL) models assume that each latent construct η_i (or observed variable) measured at time 1 is a function of its former value at time -1, plus stochastic error (see equation 1 below). It also relies on a valid measurement model which relates each latent variable to its respective indicators and to random measurement errors when more than one indicator is used to measure it (Schlüter et al., 2007). In a univariate case, autoregressive models can be formulated in the following way

$$(1) \qquad \eta_{it} = a_t + \beta_{t,t-1}\,\eta_{i,t-1} + \varsigma_{it}$$

[12] Further information about the measurements of the control variables may be provided from the first author upon request.

where α_t represents the intercept for the estimate of time point *t* and $\beta_{t,t-1}$ indicates prior influences of $\eta_{i,t-1}$ on $\eta_{i,t}$. This influence is called a stability coefficient. Index i denotes an individual case and index t denotes time (Schlüter et al., p. 5).

In a bivariate case, with two latent constructs η_i measured at two or more points in time, each of the two latent constructs is regressed at time 1 on its lagged score at time -1 plus the lagged score of the other latent construct at time -1 (Finkel, 1995). The autoregressive 'stability coefficients' resulting from this model provide information about the stability in the rank ordering of individuals over time. The cross-lagged coefficients report how much change in one construct is caused by the other construct. Formally, the autoregressive cross-lagged bivariate case can be represented as follows:

$$\eta_3 = \alpha_3 + \beta_{31}\eta_1 + \beta_{32}\eta_2 + \varsigma_3 \quad (2)$$

$$\eta_4 = \alpha_4 + \beta_{41}\eta_1 + \beta_{42}\eta_2 + \varsigma_4 \quad (3)$$

where η_3 and η_4 represent two latent constructs, η_1 and η_2 represent their respective lagged scores, α_3 and α_4 depict the intercepts of the models. The autoregressive parameters are described by β_{31} and β_{42}, while the cross-lagged coefficients by β_{32} and β_{41}. ς_3 and ς_4 display the stochastic error terms (Schlüter et al., 2007, p. 5). In our analysis we use a latent variable to measure the German language proficiency of the respondents with two questions. Thus, we can additionally control for measurement errors of German language proficiency of immigrants. German identification is measured with a single observed item.

To determine whether a model fits the data, we rely on the root mean square error of approximation (RMSEA, see Steiger and Lind, 1980), accompanied by the comparative fit index (CFI, see Bentler, 1990). According to Hu and Bentler (1999) and Marsh, Hau and Wen (2004), a good fit is indicated by a RMSEA value not much larger than 0.05 and a CFI value

above 0.90. To compare between the models we use the chi-square difference test (Marsh and Hocevar, 1985). This test is suitable to compare between nested models and determines whether the model fit significantly deteriorates when we constrain certain causal paths to zero. A nonsignificant chi-square change between two models implies that the additional constraints are supported by the data. Further support may be provided by a minimal difference in CFI between the models. A difference in CFI less than 0.01 may imply that the more restrictive model is not worse than the original one (Chen, 2007). Analyses were conducted using the software package AMOS 18 (Arbuckle, 2009) and the full information maximum likelihood (FIML) procedure, which is most suitable to deal with the problem of missing values (see Schafer and Graham, 2002).

Findings

To compare between the emotional integration model, the cultural integration model and the reciprocal model, we ran a series of three nested models. We began with a model that allowed German proficiency and German identification to influence each other reciprocally (Model 1). This model controls for stability coefficients of German identification and German language proficiency which are set equal between the different waves. The second model consisted of cross-lagged effects only from German language proficiency to German identification (Model 2 – the cultural integration model). The stability constraint was maintained here and in the third model as well. Finally, the third model postulated causal effects only from German identification to German language proficiency (Model 3 – the national identity model). We ran each model without and with control variables to test the robustness of our findings (Schlüter et al., 2008). The results with respect to our hypotheses were essentially the same (see Appendix 2 for summary of results with controls).

The reciprocal model (Model 1) was estimated first. The advantage of starting with this model is that the two alternative models tested are restricted versions of this model and are thus

nested within it (Schlüter et al., 2008). As demonstrated in Table 1, the reciprocal model fit the data well. First, it should be noted that the indicators measure German language proficiency in a valid way with standardized factor loadings higher than 0.72 (see Figure 1). Furthermore, it was possible to constrain respective factor loadings to be equal over time without any deterioration in model fit. This implies that the measurement of German language proficiency is invariant over time and valid for longitudinal comparison (e.g., Steenkamp and Baumgartner, 1998). Thus, we retain equality constraints of these factor loadings throughout the subsequent analyses.[13]

Considering the stability coefficients in this first model, it is noteworthy that stability is considerable and higher for German language proficiency compared with the stability of German identification, as evident in Figure 1.[14]

Moving next to the cross-lagged coefficients indicating the effects of German identification on German language proficiency and the opposite effects, the model suggests that the cross-lagged effects of German identification on German language proficiency are mostly insignificant, with the exception of the effect of German identification in 1997 on German language proficiency in 1999, as displayed in Figure 1. The reciprocity hypothesis may thus be rejected. By way of contrast, the (standardized) cross-lagged effects of German language proficiency on German identification across all temporal paths are significant ($p < 0.001$) and range between $\beta = 0.18$ in 1999 and $\beta = 0.21$ in 2001.[15]

[13] Cross-group invariance in the factor loadings of German language proficiency was also achieved.

[14] The unstandardized stability coefficients for language proficiency between 1997 and 1999, 1999 and 2001 and 2001 and 2003 were b = 0.88 (S.E. = 0.02), b = 0.93 (S.E. = 0.02) and b = 0.97 (S.E. = 0.02) and for German identification b = 0.52 (S.E. = 0.26), b = 0.46 (S.E. = 0.03) and b = 0.53 (S.E. = 0.03), respectively.

[15] The unstandardized effects for 1999, 2001 and 2003 were b = 0.17 (S.E. = 0.02), b = 0.20 (S.E. = 0.03) and b = 0.19 (S.E. = 0.03) respectively.

To further validate the one directional path suggested by the reciprocal model, we estimated the cultural integration model (Model 2) next. In this model, only the cross-lagged effects of German language proficiency on German identification were estimated. The fit of the model to the data as reported in Table 1 was acceptable. A nonsignificant chi-square difference test ($p > 0.054$) indicates that this cultural integration model is not significantly worse than the reciprocal model. Further support is provided by the CFI, which did not deteriorate.

As presented in Figure 2, the stability coefficients in this model are very similar to those reported in the reciprocal model. Figure 2 additionally indicates that the cross-lagged effects of German language proficiency on German identification are significant and positive at the three time points with a similar size to those observed in Model 1. The cultural model is thus supported by the data.

Finally, we estimated the national identity model (Model 3). Here, only the effects of German identification on German language proficiency were estimated. Table 1 demonstrates that the fit of this model to the data was considerably worse than the fit of Models 1 and 2 to the same data. Particularly, while the CFI measure of fit is still within the acceptable range, the value of the RMSEA is higher than the recommended cutoff value. Furthermore, the chi-square difference test was significant, indicating that this model is significantly worse than the reciprocal model (Model 1). This result receives further support from the decrease of more than 0.01 in the value of the CFI compared to the reciprocal and the emotional integration model (i.e., Models 1 and 3) (Chen, 2007).

Turning to the cross-lagged effects, Figure 3 illustrates that the effect of the respondents' German identification levels on their German language proficiency is very weak. It is significant ($p < 0.01$) when observed between 1997 and 1999 and between 2001 and 2003, but not when observed between 1999 and 2001. Support for the national identity model is thus much weaker than the support provided for the cultural integration model.

It is possible that the relations between German language proficiency and German identification are defined differently for respondents from different countries of origin. In order to test this possibility, we ran a multiple group comparison of our ARCL models for those origin groups where we could find a sufficient number of cases (Turkey, ex-Yugoslavia and the South European countries - Greece, Spain, Portugal and Italy). This comparison indicated that effects are indeed robust across the three origin-country groups (CFI = 0.961; RMSEA = 0.04; Pclose = 1). It is noteworthy that in the case of immigrants from the former Yugoslavia, German identification was found to significantly affect German language proficiency. These effects were, however, considerably weaker than the effects of German language proficiency on German identification.

Finally, we computed the same models to predict national identification and German language proficiency in 1997 while controlling for the effect of the exogenous variables discussed above. The model pooled all immigrant groups together since the information above suggests no meaningful differences between the effects for the different immigrant groups. The effects of the control variables were consistent with previous studies (see Appendix 3). Notably, decreasing identification with the country of origin had a very strong effect on German identification, ($\beta = 0.43$), and decreasing tendencies towards heritage cultural practices were strongly and positively correlated with German language skills ($\beta = 0.18$). Levels of German language proficiency were found to decrease with Turkish origin ($\beta = -0.20$), and so with age at migration - the older one was at immigration the lower one's German language proficiency ($\beta = -0.34$). The findings in the three models with respect to the cross-lagged effects between German identification and German language proficiency remained essentially the same (See Appendix 2).

Summary and Conclusions

This paper tried to delineate, both theoretically and empirically, the mechanisms underlying the reciprocal relationship between cultural and emotional integration of immigrants. The discussion was limited to the respondents' relationships with the host society's culture. We started by presenting two theoretical arguments: The first maintained that German language proficiency positively affects German identification. The second suggested the opposite direction, that is, that German identification positively influences German language proficiency. We additionally tested the possibility of a reciprocal relationship between both constructs. To the best of our knowledge, this is the first study which provides a dynamic test of these competing theoretical perspectives. To test these propositions we utilized longitudinal data from the German SOEP between the years 1997 and 2003 on first generation immigrants in Germany. For the analysis we used autoregressive cross-lagged models to test the effects in both directions simultaneously.

The findings suggest first that the causal relations are mainly shaped by the effect of German language proficiency on respondents' German identification. There was no empirical support for an effect in the opposite direction. This finding may have a significant implication for policy issues regarding the requirement in Germany (and Western Europe) that immigrants should learn the German language (within the German context). Improving proficiency in the second language may not only be important for immigrants' labor market achievements but also for their identification with their host society. Theory suggests that language learning facilitates this process because of its strong association with the delineation of cultural boundaries and cultural group membership. Importantly, we found only weak indications for an effect of German identification on German language proficiency. In fact, we find only little, if any, change in the respondents' German language proficiency over time. Thus, not much variation in language proficiency is left for German identification to explain. In other

words, cultural integration in the form of German language proficiency is a highly stable characteristic of immigrants in Germany that is not easy to manipulate or change.

This study provides support for early theories of integration which understood the emergence of national identification to represent the final stage of integration (e.g., Gordon, 1964; Taft, 1957). However, it might also imply that in order to promote the national identification process of immigrants, they should be encouraged to become proficient in the host society's language. In this manner, the cultural stress which often characterizes the integration process and immigrants' ability to create positive social group identification themselves may also be reduced. Whether intended or not, cultural integration exerts observable effects on identificational integration, promoting a process of assimilation in its most traditional form.

This study is not without limitations. First, identification with Germany was measured by a single indicator. Such a measurement does not allow controlling for measurement errors and testing the longitudinal equivalence of this measurement and its validity for longitudinal analysis. Second, our focus was dedicated entirely to the German integration process leaving aside the processes underway in terms of immigrants' affiliation with their ethnic group and their mother tongue proficiency. Given that we investigate only the first immigrant generation, this compromise is not hard to defend, yet it would be useful to also look at the ethnic-related processes primarily in the context of immigrant offspring.

This study should be understood as a first step in understanding the relations between different dimensions of integration. More broadly, it invites students of integration to take advantage of available data and methods, to closely study those aspects of integration research that remain, to date, subjects of debate also in other contexts. The collection of panel data on integration and expanding it to cover measurements of further dimensions of immigrants' integration into the host society not only in Germany but in other immigration countries are necessary steps to help in answering these questions.

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Table 1: Global fit measures

	RMSEA	CFI	Chi^2/df
Model 1 – The reciprocal model	0.06	0.97	11.33
Model 2 – The cultural integration model	0.06	0.97	10.67
Model 3 – The emotional integration model	0.07	0.96	14.63

Source: SOEP 1997, 1999, 2001, 2003

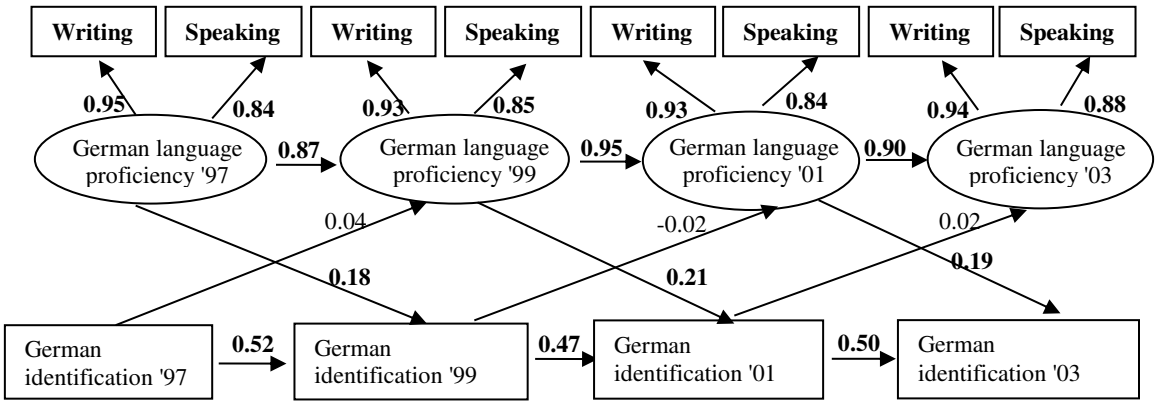

Figure 1: The reciprocal model; N = 2,444. Regression coefficients from German national identification to German language proficiency are not significant. All other regression coefficients are significant at the 0.01 level. Standardized estimates are displayed. (Source: SOEP 1997, 1999, 2001, 2003)

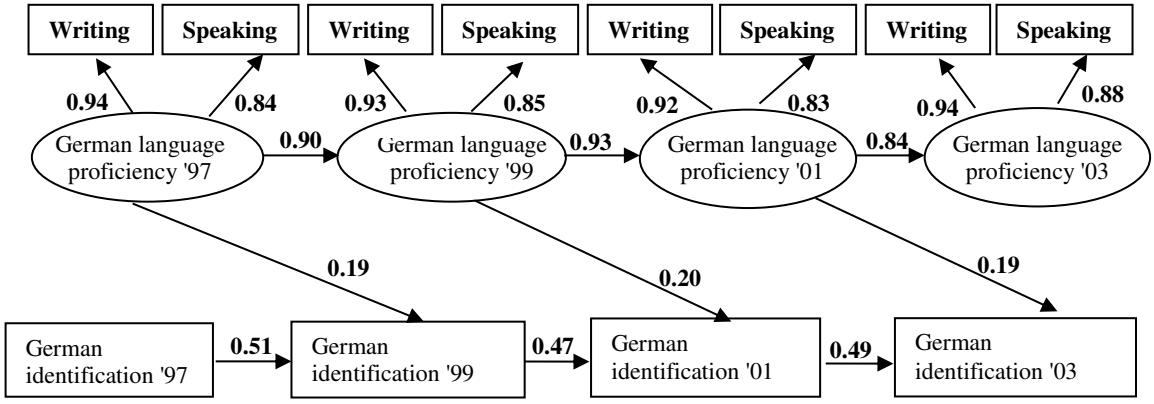

Figure 2: The cultural integration model; N = 2,444. All coefficients are significant at the 0.01 level. Standardized estimates are displayed. (Source: SOEP 1997, 1999, 2001, 2003)

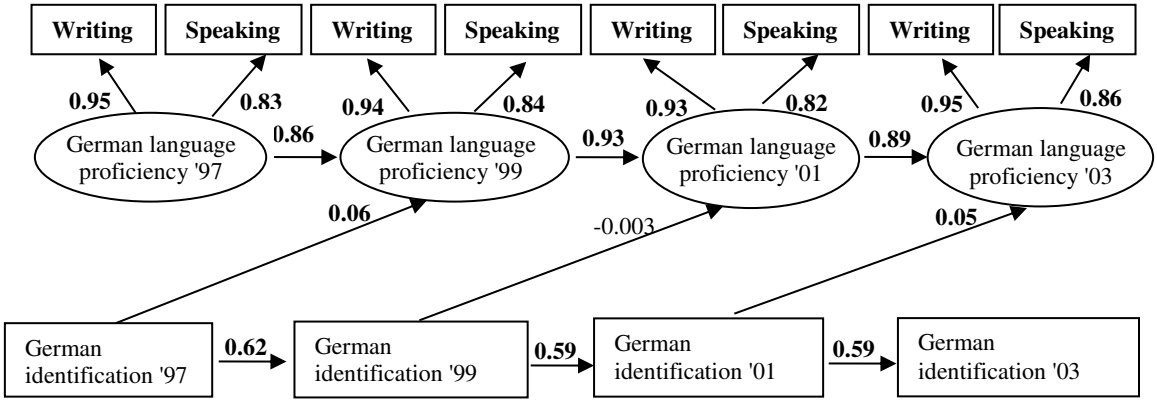

Figure 3: The emotional integration model; N = 2,444. All stability coefficients are significant at the 0.01 level. Of the three cross-lagged effects, only the cross-lagged effect from German identification in 1999 to German language proficiency in 2001 is insignificant. Standardized estimates are displayed. (Source: SOEP 1997, 1999, 2001, 2003)

Appendix 1: Means (and standard deviations in parentheses), of the indicators and control variables used in the models

	German speaking skills 1997	German speaking skills 1999	German speaking skills 2001	German speaking skills 2003	German writing skills 1997	German writing skills 1999	German writing skills 2001	German writing skills 2003	German identification 1997	German identification 1999	German identification 2001	German identification 2003
1) Turkish (N = 757)	3.15 (.97)	3.17 (1.00)	3.13 (.99)	3.24 (1.01)	2.45 (1.18)	2.47 (1.22)	2.46 (1.18)	2.62 (1.26)	2.07 (1.03)	2.17 (1.04)	2.34 (0.99)	2.51 (1.10)
2) Ex Yugoslavian (N = 473)	3.53 (.97)	3.70 (.86)	3.60 (1.00)	3.82 (.93)	2.85 (1.19)	2.97 (1.13)	2.86 (1.18)	3.07 (1.24)	2.40 (1.07)	2.67 (1.02)	2.83 (1.06)	3.03 (1.15)
3) South European (N = 620)	3.46 (.93)	3.53 (.98)	3.56 (.98)	3.57 (.99)	2.61 (1.21)	2.67 (1.29)	2.72 (1.24)	2.77 (1.24)	2.22 (1.07)	2.32 (1.07)	2.70 (1.01)	2.75 (1.10)
4) West European (N = 224)	4.61 (.62)	4.64 (.65)	4.57 (.77)	4.67 (.61)	4.18 (1.04)	4.32 (1.00)	4.28 (1.03)	4.32 (.97)	3.00 (1.48)	3.10 (1.43)	3.17 (1.40)	3.11 (1.36)
5) East European (N = 149)	3.60 (1.06)	3.75 (.89)	3.85 (.91)	4.10 (.88)	3.20 (1.24)	3.20 (1.02)	3.45 (1.00)	3.77 (.96)	2.99 (1.39)	3.10 (1.25)	3.19 (1.17)	3.38 (1.28)
6) Other (N = 221)	3.73 (.97)	3.82 (1.02)	3.75 (.93)	3.76 (1.00)	3.39 (1.22)	3.36 (1.08)	3.17 (1.24)	3.41 (1.16)	2.29 (1.20)	2.75 (1.20)	2.62 (1.18)	2.90 (1.18)

Note: German speaking skills, German writing skills and German identification range between 1 (low) and 5 (high); Source: SOEP 1997, 1999, 2001, 2003

	Primary education	Employed	Ethnic identification	Parent's primary education or less	Cultural preferences	Mother tongue proficiency	Ethnic friends	Discrim.	Contact	Female
1) Turkish (N= 757)	.79 (.40)	.47 (.50)	2.09 (.96)	.65 (.48)	2.22 (.73)	4.07 (.82)	.33 (.47)	.60 (.49)	.72 (.45)	.49 (.50)
2) Ex Yugoslavian (N= 473)	.81 (.39)	.63 (.48)	2.17 (.89)	.50 (.50)	2.81 (.72)	4.49 (.65)	.53 (.50)	.56 (.50)	.76 (.43)	.51 (.50)
3) South European (N=620)	.88 (.33)	.61 (.49)	1.91 (.88)	.65 (.48)	2.54 (.72)	4.28 (.71)	.50 (.50)	.46 (.50)	.81 (.39)	.44 (.50)
4) West European (N= 224)	.42 (.50)	.72 (.45)	2.30 (1.19)	.03 (.17)	3.34 (.72)	4.58 (.83)	.88 (.33)	.32 (.47)	.71 (.46)	.53 (.50)
5) East European (N= 149)	.54 (.50)	.41 (.49)	2.68 (1.19)	.10 (.30)	3.25 (.71)	4.51 (.64)	.74 (.44)	.63 (.49)	.40 (.49)	.62 (.49)
6) Other (N= 221)	.30 (.46)	.53 (.50)	2.08 (.95)	.23 (.42)	2.94 (.54)	4.70 (.63)	.77 (.42)	.41 (.50)	.60 (.49)	.50 (.50)

Note: Primary education or less = 1, otherwise = 0; employed = 1, otherwise = 0; ethnic identification ranges between 1 (low) and 5 (high); parents' education primary or less = 1, otherwise = 0; ethnic cultural preferences for music and cooking (index) ranges between 1 (high) and 5 (low); mother tongue proficiency ranges between 1 (low) and 5 (high); has more ethnic than German friends = 1, otherwise = 0; experienced discrimination = 1, otherwise = 0; has contact with natives = 1, otherwise = 0; female = 1, male = 0; Source: SOEP 1997, 1999, 2001, 2003

Appendix 2: Cross-lagged coefficients in the autoregressive cross-lagged model which controls for background variables

Predictors	Standardized	Unstandardized	S.E.
Language proficiency1997	0.20	0.20	0.03
Language proficiency 1999	0.22	0.21	0.03
Language proficiency 2001	0.19	0.20	0.03
German identification 1997	0.02	0.02	0.02
German identification 1999	-0.03	-0.03	0.02
German identification 2001	0.02	0.03	0.02

Source: SOEP 1997, 1999, 2001, 2003.

Appendix 3: Effects of the control variables on language proficiency and identification with Germany						
	German language proficiency			German identification		
Variable	Standardized	Unstandardized	S.E.	Standardized	Unstandardized	S.E.
Female	-0.06	-0.15*	0.04	-0.05	-0.11*	0.05
Low parental education[d]	-0.14	-0.34*	0.05	-0.06	-0.14*	0.05
Turkey[a]	-0.20	-0.51*	0.07	-0.09	-0.23*	0.08
Ex-Yugosllavia[a]	-0.10	-0.30*	0.07	-0.03	-0.09	0.08
South Europe[a]	-0.16	-0.45*	0.07	-0.04	-0.11	0.08
Identification with country of origin[b]	0.14	0.18*	0.02	0.43	0.51*	0.03
ISEI[c]	0.22	0.02*	0.002	0.02	0.002	0.003
Low education[d]	-0.14	-0.39*	0.06	-0.007	-0.02	0.06
Cultural origin practices[e]	0.18	0.27*	0.03	0.15	0.21*	0.04
Contact with natives [f]	0.09	0.24*	0.05	0.14	0.35*	0.05
Discrimination experience [g]	-0.05	-0.11*	0.04	-0.02	-0.04	0.05
Employed[h]	-0.09	-0.21*	0.06	-0.04	-0.08	0.07
German friends[i]	0.14	0.33*	0.05	0.10	0.24*	0.05
Mother tongue proficiency[j]	0.08	0.13*	0.03	-0.01	-0.02	0.03
Age at immigration	-0.34	-0.04*	0.002	-0.06	-0.006*	0.003

Source: SOEP 1997, 1999, 2001, 2003

Notes: * P < 0.05

[a] Country of origin where Western European Origin is the reference category

[b] Identification with country of origin was measured on a scale from 1 (very strongly) to 5 (not at all)

[c] ISEI = International Socioeconomic Index of Occupational Status, an index measuring occupational prestige

[d] Secondary school or lower (with the rest as the reference category)

[e] Cultural origin practices is an index based on two items: cooking food from cultural heritage and listening to music from one's cultural heritage both measured on a scale ranging from 1 (always) to 5 (never)

[f] Contact with natives is constructed from two items asking whether respondents had visitors from the receiving society and whether they were guests at homes of members of the receiving society. Those who answered positively to at least one form of visits are considered to have contact with natives and receive the value of 1, otherwise 0

[g] Discrimination experience measures whether respondents reported having been discriminated against on grounds of their ethnic origin at least rarely. No discrimination experience is the reference category

[h] With unemployed or out of the labor market as the reference category

[i] German friends measures whether respondents reported that at least one of their three closest friends was German. The reference category is no German friends

[j] Mother tongue proficiency is constructed as a mean index of respondents' writing and speaking skills ranging from 1 (very good) to 5 (very poor)